

FIG.1

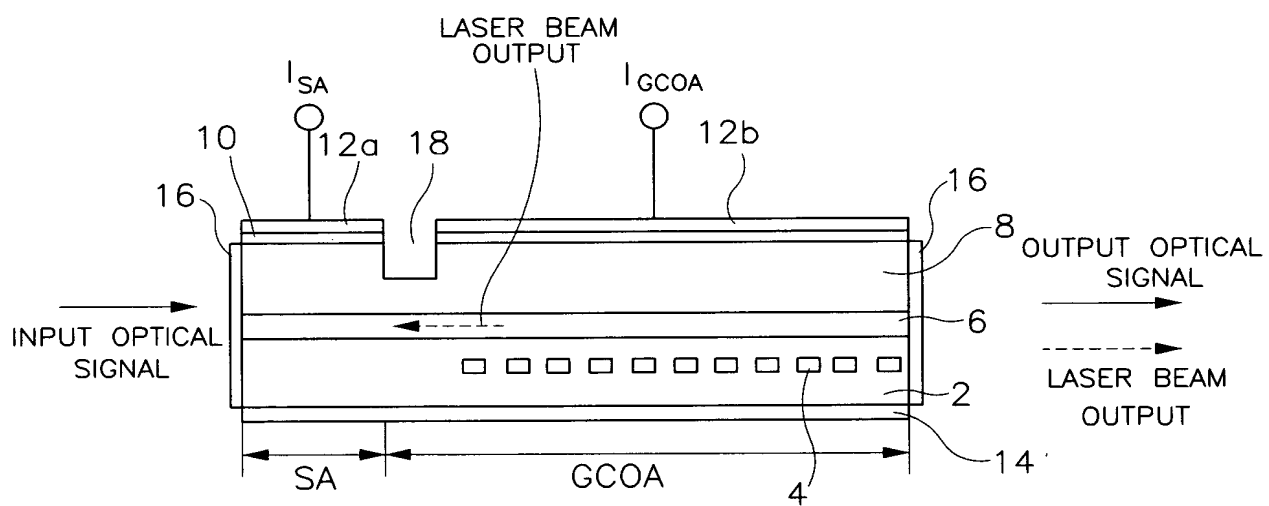


Diagram illustrating a semiconductor device 100. The device consists of a substrate 2, a middle layer 4, and a top layer 6. A series of rectangular elements 8 are arranged in a row within the middle layer 4. A dashed oval highlights a portion of these elements, with a magnified view below showing three individual elements. The device is labeled with various numbers: 10, 12, 14, 16, and 18. An input optical signal enters from the left, and an output optical signal exits from the right. A laser beam output is also indicated on the right. A label 'GSOA' is positioned above the device.

The diagram illustrates a semiconductor optical amplifier (SOA) device. It features a central gain section (2) flanked by input and output couplers (4 and 6). An input optical signal enters from the left, and an output optical signal exits to the right. A laser beam output is also shown. A current source ( $I_{GSOA}$ ) is connected to the top of the device. Various components are labeled with numbers: 12, 10, 8, 6, 4, 2, 16, 14.

FIG.3

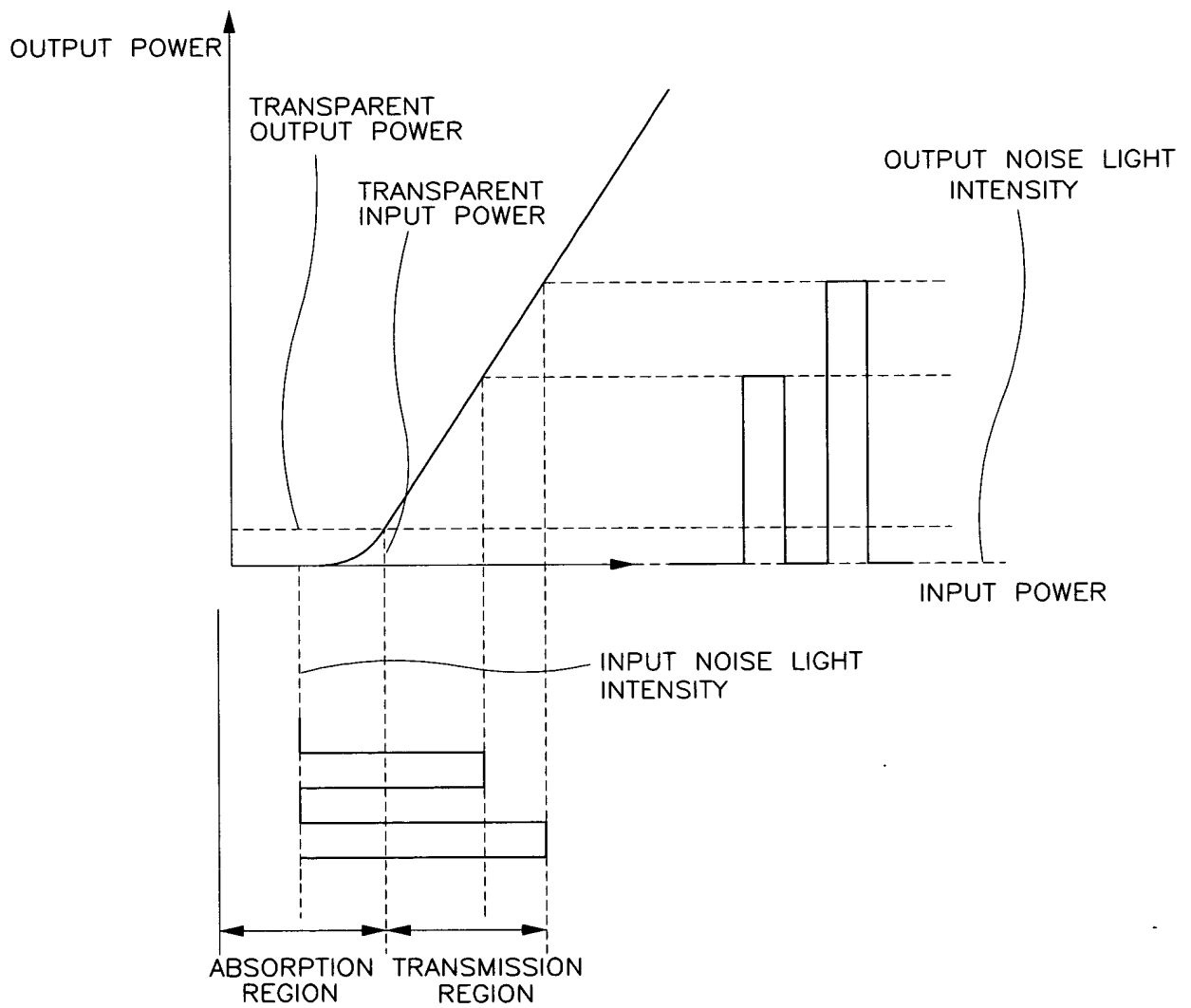


FIG.4

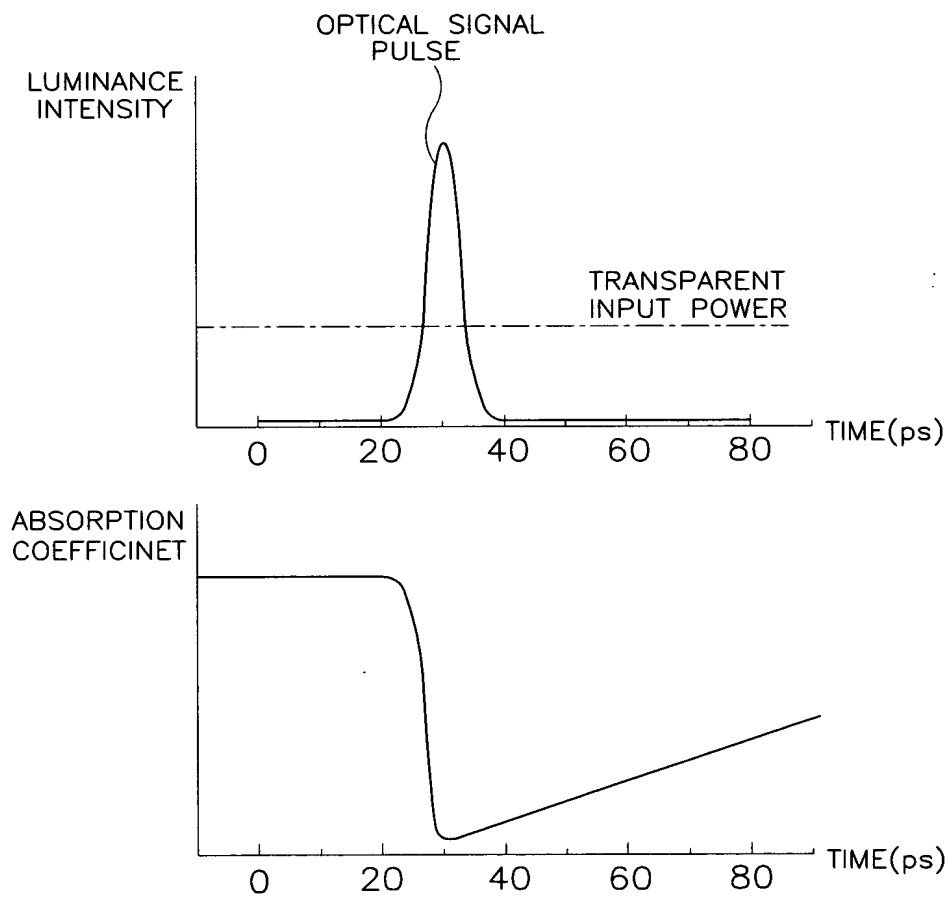


FIG.5

